## A New Anthine Fish, Anthias luzonensis (Perciformes; Serranidae), from the Philippines

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**Abstract** A new anthine fish, *Anthias (Pseudanthias) luzonensis* is described on the basis of two specimens collected from Luzon Is., Philippines. This new species differs from all other species of the genus in the combination of two predorsal bones, a produced third dorsal spine in males, much prolonged middle anal soft rays. In life two broad lateral bands of orange-red on the dorsal part of the body and a red blotch on the basal portion of the sixth to eighth dorsal fin spines are observable in males.

A species of small colorful fish of the family Serranidae, subfamily Anthiinae, from Luzon Is., Philippines is described as new in the present paper.

In the following description, data of the paratype, when different from those of the holotype, are given in parentheses. The length of the caudal peduncle was measured diagonally from the rear base of the anal fin to the midbase of the caudal fin. The last ray of the dorsal and anal fins was counted as one when branched to the base. Counts for vertebrae and predorsal bones were made by using radiographs.

Type specimens are deposited in the National Science Museum, Tokyo (NSMT-P).

Anthias (Pseudanthias) luzonensis sp. nov. (Figs. 1, 2)

Holotype. NSMT-P 21435, 98 mm SL (stand-

ard length), male, collected by H. Masuda on May 10, 1981, at a depth of 10 m off Batangas, Luzon Is., Philippines.

**Paratype.** NSMT-P 21436, 81 mm SL, female, collected together with holotype.

**Diagnosis.** Dorsal rays X, 16; anal rays III, 7; pectoral rays 18~19; lateral line scales 47; 4 scale rows between middle of spinous dorsal and lateral line; gill rakers 11+26; body depth 2.70~2.72 in SL; head length 3.24~3.31; third dorsal spine produced in male; front of upper lip of male not thickened and pointed; no papillae along rim of posterior half of eye; subopercle and interopercle slightly serrated; middle rays of anal fin much prolonged, third anal soft ray longer than head; caudal deeply emarginated, outer rays filamentous; spinous dorsal fin not scaled; predorsal bones 2; color pattern in life described below.

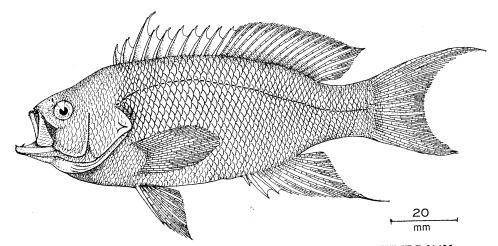


Fig. 1. Anthias (Pseudanthias) luzonensis sp. nov. Holotype, male, 98 mm SL, ZUMT-P 21435.





Fig. 2. Underwater photographs of *Anthias (Pseudanthias) luzonensis* sp. nov., taken at a depth of 10 m on coral reef off Batangas, Luzon Is., Philippines, on May 10, 1981, by Hajime Masuda. A: Female. B: Male.

**Description.** Dorsal fin rays X, 16; anal fin rays III, 7; pectoral fin rays 19 (18); branched caudal fin rays 13; lateral line scales 47; gill rakers on first arch 11+26; vertebrae 11+15; predorsal bones 2.

Body elongate, compressed; greatest body depth 2.72 (2.70) in SL; width just behind gill opening 5.60 (5.59) in SL; dorsal and ventral contours evenly and gently curved; head length 3.31 (3.24) in SL; diameter of orbit 4.70 (4.72) in head; snout 3.57 in head; interorbital space convex and broader than eye diameter, 3.25 (3.57) in head; length of caudal peduncle 1.41 (1.61); depth of the same 1.92 (2.00) in head.

Mouth oblique and moderately large; lower jaw slightly projecting when mouth closed; upper jaw length 2.37 (2.27) in head; maxilla expanded distally, reaching below middle of orbit, its greatest depth as wide as eye diameter; no supramaxilla. Nostrils close together, directly in front of eye; anterior nostril in short tube with a produced posterior flap; posterior one larger, ovoid in shape. Teeth on upper jaw in two series, outer ones enlarged, inner ones minute; a pair of canines on tip of upper jaw, and posteriorly another pair of canines directed backward; lower jaw with a band of enlarged teeth; a pair of canines on tip of lower jaw, and posteriorly one or two canines on each side; small teeth on vomer and palatines, the band of teeth on vomer triangular in shape;

tongue smooth.

Dorsal fin unnotched, inserted above upper end of gill opening; third dorsal spine produced in male, its length 2.16 in head; in female not produced, its length 2.94; fourth dorsal spine 3.15 (2.78); fourth through tenth spines subequal; a small cirrus behind tip of each dorsal spine; posterior dorsal fin rays slightly prolonged; longest (14th) dorsal soft ray 1.41 (1.53) in head. Anal fin originating below base of third dorsal soft ray; length of first anal spine 6.58 (6.10), second anal spine 2.96 (2.63), third anal spine 2.69 (2.45) in head; middle anal soft rays much prolonged, extending below base of caudal fin; longest (3rd) anal soft ray 3.14 (2.89) in SL. Pectoral fin subsymmetrical, shorter than head, reaching vertical through vent, its length 3.58 (3.38) in SL; the rays mostly branched. Pelvic fin inserted below lower base of pectoral, slightly shorter than pectoral fin, its length 4.08 (3.68) in SL; caudal fin deeply emarginated, outer rays filamentous, its length 2.50 (2.13) in SL.

Scales rather large, ctenoid; 6 in a series from origin of dorsal to lateral line, 4 in a series from middle of spinous dorsal to lateral line and 16 (17) from origin of anal to lateral line; head closely scaled except for lips; soft dorsal and anal fins covered with small scales basally. Lateral line normally curved, nearly concurrent with back and extending along middle of caudal

peduncle to base of caudal fin.

Color of male when fresh: Body orange red; an orange band, narrower than pupil and narrowly edged with pink, running from lower portion of orbit to pectoral base. Dorsal and anal orange red; caudal orange red, posterior part of both lobes yellow; pectoral pale red; pelvic pale pink. (Color of female bears some resemblance to that of male.) Color of male in life is different from that after death (Fig. 2B). Two lateral bands of orange red, broader than eye diameter; the first band along base of dorsal fin; the second begins on nape between tip of snout and dorsal fin origin, passes above upper border of opercle and extends to caudal base above lateral line; an orange-red blotch on interorbital space; an orange band runs from tip of snout, passing lower margin of eye to pectoral base; a red blotch on basal portion of sixth to eighth dorsal spines. In the female, bands and blotches are not seen.

Remarks. The present new species is closely related to Anthias randalli (Lubbock et Allen, 1978) from the western Pacific, but differs from it in having a larger number of lateral line scales (47 instead of  $38 \sim 46$ ) and gill rakers (11+26 instead of  $10+1+21\sim23$ ), smaller eyes (4.70 $\sim$ 4.72 instead of  $2.76 \sim 3.77$  in head), higher caudal peduncle (1.92  $\sim$  2.00 instead of 2.43  $\sim$ 2.86), no produced third dorsal spine in female (produced in female), and different coloration.

Anthias luzonensis is also similar to A. pleurotaenia (Bleeker, 1857), but is different in having a smaller number of predorsal bones (2 instead of 3), prolonged anal soft rays, no prolonged pelvic fin, and different coloration.

## Literature cited

Bleeker, P. 1857. Achtste bijdrage tot de kennis der vischfauna van Amboina. Act. Soc. Sci. Indo-Neerl., II:  $1 \sim 102$ .

Lubbock, R. and G. R. Allen. 1978. A distinctive new Anthias (Teleostei: Serranidae) from the western Pacific. Rec. West. Aust. Mus., 6 (2):  $259 \sim 268$ .

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## フィリッピンから得られた新種 Anthias luzonensis 片山正夫・益田 一

フィリッピン Luzon 島, Batangas 沖の水深 10米 から得られたハタ科ハナダイ亜科の1新種 Anthias (Pseudanthias) luzonensis を記載した. 本種は2個の predorsal bone をもつこと、雄の背びれ第3棘が延長 すること, しりびれの中央部軟条が著しく延長するこ と, 生時に雄の体側に黄赤色の幅広い縦帯が走り, ま た背びれ第6棟から第8棘までの基部に赤色斑紋が見 られることなどで同属の既知種と識別される.

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